

Goat Anti-NOVA1 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1740a

Specification

Goat Anti-NOVA1 Antibody - Product Information

Application	IHC, WB
Primary Accession	P51513
Other Accession	NP_006482 , 4857
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	51727

Goat Anti-NOVA1 Antibody - Additional Information

Gene ID 4857

Other Names

RNA-binding protein Nova-1, Neuro-oncological ventral antigen 1, Onconeural ventral antigen 1, Paraneoplastic Ri antigen, Ventral neuron-specific protein 1, NOVA1

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-NOVA1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-NOVA1 Antibody - Protein Information

Name NOVA1 ([HGNC:7886](#))

Function

Functions to regulate alternative splicing in neurons by binding pre-mRNA in a sequence-specific manner to activate exon inclusion or exclusion. It binds specifically to the sequences 5'-YCAAY- 3' and regulates splicing in only a subset of regulated exons (PubMed:10811881). Binding to an exonic 5'-YCAAY-3' cluster changes the protein complexes assembled on pre-mRNA, blocking U1 snRNP binding and exon inclusion, whereas binding to an intronic 5'-YCAAY-3' cluster enhances

spliceosome assembly and exon inclusion. Binding to 5'-YCAAY-3' clusters results in a local and asymmetric action to regulate spliceosome assembly and alternative splicing in neurons. Binding to an exonic 5'-YCAAY-3' cluster changed the protein complexes assembled on pre-mRNA, blocking U1 snRNP (small nuclear ribonucleoprotein) binding and exon inclusion, whereas binding to an intronic 5'-YCAAY-3' cluster enhanced spliceosome assembly and exon inclusion. With NOVA1, they perform unique biological functions in different brain areas and cell types. Autoregulates its own expression by acting as a splicing repressor. Acts to activate the inclusion of exon E3A in the glycine receptor alpha-2 chain and of exon E9 in gamma-aminobutyric-acid receptor gamma-2 subunit via a distal downstream UCAU-rich intronic splicing enhancer. Acts to regulate a novel glycine receptor alpha-2 chain splice variant (alpha-2N) in developing spinal cord (By similarity).

Cellular Location

Nucleus {ECO:0000250|UniProtKB:Q9JKN6}.

Tissue Location

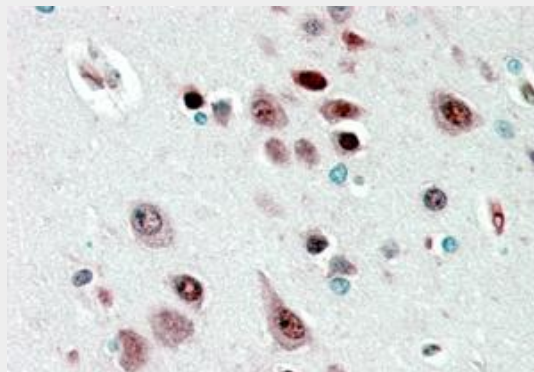
Expressed in cerebellum, brain stem, hippocampus, and frontal cortex.

Goat Anti-NOVA1 Antibody - Protocols

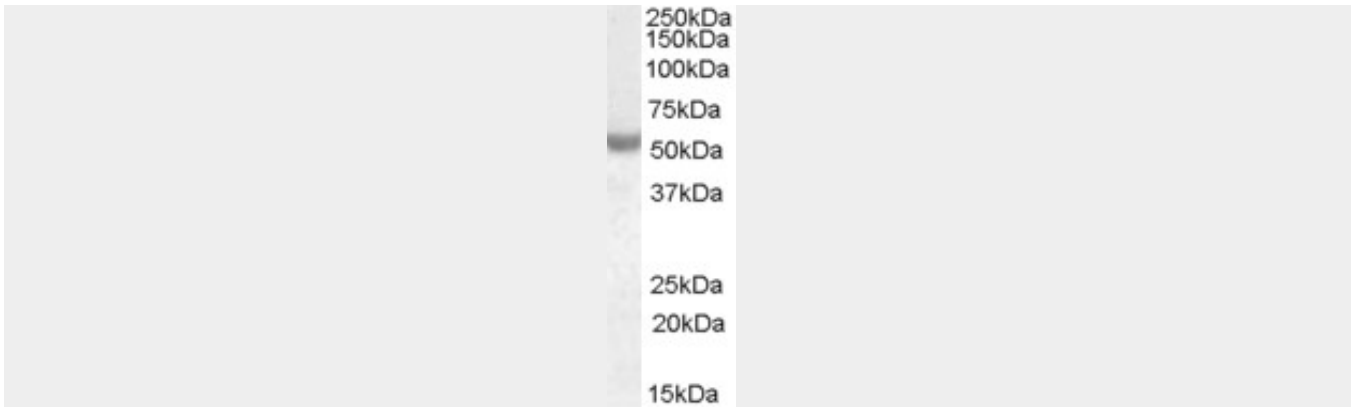
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

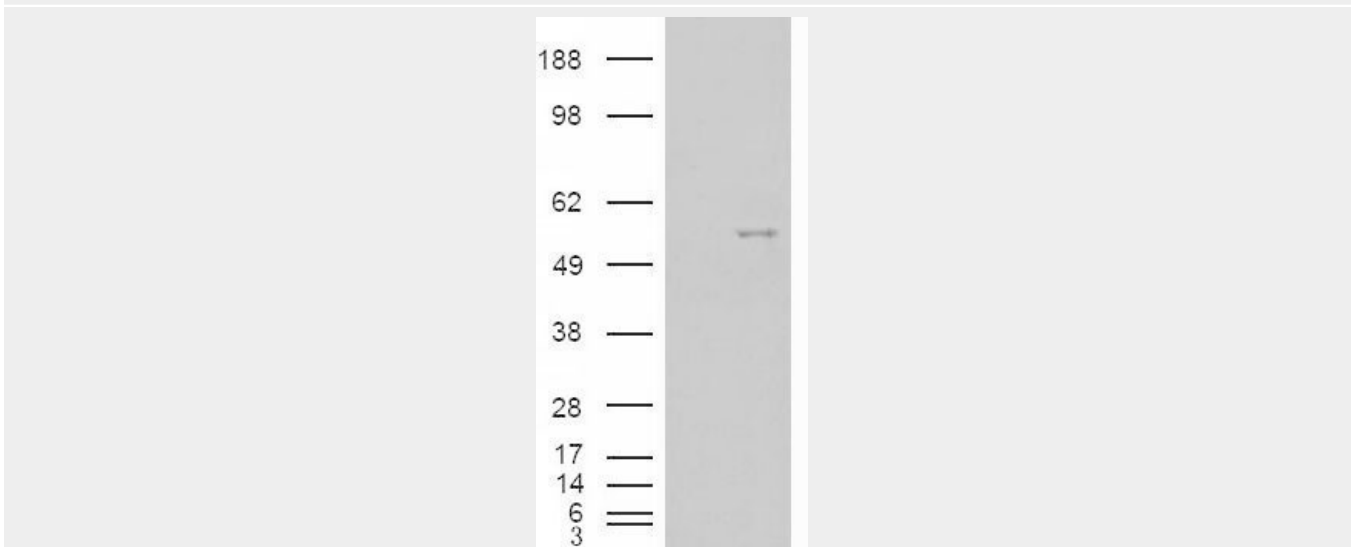
Goat Anti-NOVA1 Antibody - Images



AF1740a (2.5 µg/ml) staining of paraffin embedded Human Cerebral Cortex. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



AF1740a (0.01 µg/ml) staining of Human Breast Cancer lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



HEK293 overexpressing NOVA1 (RC210407) and probed with AF1740a (mock transfection in first lane), tested by Origene.

Goat Anti-NOVA1 Antibody - Background

This gene encodes a neuron-specific RNA-binding protein, a member of the Nova family of paraneoplastic disease antigens, that is recognized and inhibited by paraneoplastic antibodies. These antibodies are found in the sera of patients with paraneoplastic opsoclonus-ataxia, breast cancer, and small cell lung cancer. Alternatively spliced transcripts encoding distinct isoforms have been described.

Goat Anti-NOVA1 Antibody - References

Genome-wide association study of antipsychotic-induced parkinsonism severity among schizophrenia patients. Alkelai A, et al. *Psychopharmacology (Berl)*, 2009 Oct. PMID 19680635.
Genetic variants associated with cardiac structure and function: a meta-analysis and replication of genome-wide association data. Vasani RS, et al. *JAMA*, 2009 Jul 8. PMID 19584346.
Conduct disorder and ADHD: evaluation of conduct problems as a categorical and quantitative trait in the international multicentre ADHD genetics study. Anney RJ, et al. *Am J Med Genet B Neuropsychiatr Genet*, 2008 Dec 5. PMID 18951430.
Paraneoplastic antibody during follow-up of a patient with anti-Ri-associated paraneoplastic neurological syndrome. Stich O, et al. *Acta Neurol Scand*, 2009 May. PMID 18822086.
Post-transcriptional regulation of neuro-oncological ventral antigen 1 by the neuronal RNA-binding

proteins ELAV. Ratti A, et al. J Biol Chem, 2008 Mar 21. PMID 18218628.